NOVEMBER/DECEMBER 2023

CAMB42 — BIOSTATISTICS

Time: Three hours

Maximum: 75 marks

LIBRARY

SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer ALL the questions.

- 1. What is frequency distribution?
- Define data.
- 3. What is arithmetic mean?
- 4. What is standard deviation?
- 5. Define correlation.
- 6. Write down the formula of Karl Pearson's coefficient of correlation.
- 7. Define variance.
- 8. What is F-test?
- 9. What is ANOVA?
- 10. What is experimental design?

SECTION B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL the questions.

11. (a) Explain the types of classification of data.

Or

- (b) Discuss the scope of Biostatistics.
- 12. (a) Give an account on mean, its merits and demerits.

Or

- (b) Analyze the various measures of dispersion.
- 13. (a) Two investigators rank the intensity of flower colours as follows. What is the rank correlation between the judgements of the two investigators?

I-Investigator 1 2 3 4 5 6

II-Investigator 3 1 4 2 6 5

Or

- (b) What is regression analysis? Explain the types.
- 14. (a) Enumerate the conditions for the application of Chi-square test.

Or

(b) What is t- distribution? What are its uses?

15. (a) Describe any one type of experimental design.

Or

(b) Summarize the basic principles of experimental designs.

SECTION C — $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 16. Write an essay on the tabulation of data.
- 17. Compute the co-efficient of variation for the following data.

No. of cells 0-5 5-10 10-15 15-20 20-25 25-30 30-35 Frequency 5 12 16 21 30 14 2

- 18. Describe the types and methods of studying correlation.
- 19. Write notes on
 - (a) Test of significance
 - (b) Characteristics of Chi-square test.
- Enumerate the principles and steps involved in one way ANOVA.